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SOME ASPECTS OF VETERINARY EDUCATION*

J. SHARE-JONES, D.V.Sc., M.Sc., F.R.C.V.S.

It will be accepted by my hearers this afternoon as inevitable that in the treating of such a vast subject as Education I can deal with only a few salient points. At the outset, therefore, I would stress the fact that there are certain broad principles underlying Veterinary Education, just as is the case in any other branch.

So far as the preliminary training of the student is concerned, the only point I wish to make is that I always feel that in the interests of all concerned it is very desirable that a high standard of preliminary education should be required. There is no great hardship in this at the present time, since facilities for general education have been extended enormously during the last 15 to 20 years, but I would endeavour to make the conditions more equitable as between town and country by allowing a wide range of optional subjects for selection. I would, however, place elementary logic amongst my few obligatory subjects.

Then as regards professional education, the Council of the R.C.V.S. have appreciated the fact that the range of our science has become so much extended that it is desirable to increase the course for the Membership Diploma to five years, and a great deal of time has been spent in the consideration of the curriculum.

There is no doubt as to the desirability of having a training in the preliminary sciences as thorough as can possibly be obtained, and in this connection special attention has been given to practical laboratory work in these sciences, both in the courses of instruction and in the examinations—a development which, I feel sure, will meet with the approval of the members of the profession generally. It is a great thing for us to be able to say, and it is a point which the public readily understands, that we require from our candidates a preliminary education and a training in the preliminary sciences equal to that required from a medical student. To be able to do that makes clear at once our status as a scientific body. It should no longer be possible for critics of the profession to say, as they have said, that our students receive no appreciable instruction in, for example, Practical Chemistry. Before a Departmental Committee in 1912 a well-known medical professor stated in evidence that in a six months' post-graduate course which he gave to veterinary students one-half was spent in teaching them elementary science methods. I was astonished quite recently to hear a well-known veterinary colleague confess the truth of this. If it was true of some of the old schools, it is certainly not true of the modern schools.

In the second year's work it is anticipated that more time will be devoted to the subjects of Physiology, Histology, etc. There again, I think it essential that our students should receive as complete a training as possible, so that at the end of their course in these subjects they should be thoroughly conversant with the use of the microscope. Physiology, above all other subjects, appeals to me as common ground—represented by a department where we can meet scientists of several different branches and where the spirit of investigation is encouraged and developed possibly as nowhere else. The importance of Anatomy has been recognised, but I regret that the Council have not seen their way to reinstitute an examination at the end of each year's work in this subject. You will note that the name "Animal Husbandry" has been introduced to embrace the subjects previously designated Stable Management, and Hygiene and Dietetics. I trust that in the near future the full significance of the subject will be realised and that it will receive more consideration as its importance to the nation becomes recognised.

Another important alteration in the curriculum is the institution of a separate table of examination in Parasitology. This, I personally feel, is unnecessary when one remembers that the subject is so largely dealt with both in Zoology and Medicine. I welcome the recognition of the importance of Surgical Anatomy with great pleasure, for it is a subject in which I am specially interested. Clinical Medicine and Surgery, too, are to receive far greater attention and much more time will be devoted to this aspect of the course. This, I think, is possibly the most important development of the new scheme. I feel sure that

* Address given on the occasion of a meeting of the North Wales Division, N.V.M.A., held at Llanrwst, on July 29th, 1932. A report of this meeting was published in our issue of November 12th (having been received for publication on November 1st) when it was announced that Prof. Share-Jones' address was not yet to hand, but would be inserted on receipt.—ED., *V.R.*

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an intramural course of nine months in these subjects, as is the case at present, is altogether inadequate.

The Council are aware of the gravity of the step taken in extending the course to five years in these times of financial depression. At the same time, there are signs on every hand of encroachment into the sphere of our science, particularly by Medical Science and Agricultural Science, and it is essential that our own course should be made as thorough as possible if Veterinary Science is to be preserved as an entity. I feel that we are passing through a most critical period in our history and that there is even a danger of our separate existence being terminated. I view with alarm, for example, the passing of the magnificent school at Melbourne. That is not a good sign, and it is largely due to the fact that the authorities have concentrated their attention on providing fine buildings and elaborate equipment instead of first securing the permanent endowment of the appointments. In this connection, I would stress the importance to Veterinary Science as a whole of the recommendation of the Departmental Committee on the reorganisation of the Royal Veterinary College—that at least nine teaching chairs should be established at the College. If Camden Town can secure that, their success is assured, for equipment will undoubtedly follow endowment of this kind. As a member of the Departmental Committee referred to, I have been very keen on this point, for, to my mind, the men are of far greater importance than bricks and mortar. I have practised this in Liverpool for nearly 30 years and have endeavoured to endow as we went on, making buildings a secondary matter. I am now proud of the fact that even the youngest member of the staff has security of tenure and the Liverpool School is one of the best-endowed schools in the Empire. (I would say, in parenthesis, that the building up of a school is a lengthy process. Most people one meets are obsessed with the idea that they ought to be running one: one has to receive all kinds of suggestions. One problem is ever before us: it is Town *v.* Country as a site for a Veterinary School. It was much discussed in connection with the Royal Veterinary College, and there are advantages and disadvantages associated with both sites.)

Of one thing I feel convinced, and that is that we as a profession do not take sufficient interest in some of the subjects which come within our sphere. I have examined for various faculties and for different degrees and in my experience there is no branch of science in which the subjects of Anatomy and Physiology of the domestic animals are dealt with in a manner in any way comparable with what is required of veterinary students. Yet the fact does not appear to be appreciated, for we stand aside and watch others with degrees or other qualifications in which those subjects are taken in a most cursory manner, take up positions requiring an intimate knowledge of the structure and function of the animal body. These subjects have a great bearing on the production, care and use of the food-producing species—one of our greatest national problems. In this connection I would remind my hearers of the efforts I have made to urge the introduction of a national system of livestock insurance. Under such a scheme the whole of the animal industry, with its products and by-products, would become organised with a view to obtaining the best possible results and to obviate the immense wastage which at present occurs through neglect to utilise fully the products of the animal body. In this scheme it is obvious that the veterinary surgeon will be required to play an important rôle. There is undoubtedly a great field for Veterinary Science in its application to the normal animal alone. Unfortunately there is a danger of our science being regarded as being solely associated with disease. The fact that the study of disease and Veterinary Science are not synonymous was brought out emphatically at the last International Veterinary Congress, where it was agreed that the subject of Animal Husbandry, then introduced into the work of the Congress for the first time in its wider and real interpretation, should form an integral part of the work of every future Congress.

Our Register is suffering from a process of attrition — our numbers are gradually diminishing. It is true that women are entering the profession in increasing numbers, and although it is early to prophesy, I feel that in certain branches of the work and particularly among small animals they will undoubtedly make good. They were doing well as students, but, as I am careful to inform them while students, their future will be what they themselves make of it. They are pioneers. But in spite of this and the fact that the quality and numbers entering appear to be maintained —the quality is certainly good—the output from the schools is not keeping pace with the number of practitioners who go off the Register annually. This is having a national effect. Is is a matter of regret to me to note, for example, the absence of a qualified veterinary surgeon in some of the important agricultural centres in North Wales. With such a large animal population in those areas it is surely not in the national interest that when professional aid is required it has to to sought from such long distances. In my view, the agriculturist lacks a proper conception of the general practitioner. There is no doubt as to the need for a veterinary service, but I feel that the country is not receiving the benefit it might from our science.

The question of numbers is a matter of the gravest concern, for if we fail to provide an adequate veterinary service for the country then we must not blame the country if it looks elsewhere for such a service. The Council of the Royal College of Veterinary Surgeons has been very much concerned with regard to this question and has addressed itself most seriously to it during the last two years. We get good raw material. The percentage now entering with preliminary certificates much higher than the minimum we demand is greater than it was some few years ago. In addition, students are markedly industrious—at least, that is my experience. Nevertheless, our output is diminishing. This position is influenced by the studies in one year more especially, and this year has provoked considerable discussion.

There is one matter that appeals to me as affecting the situation. I feel that if it is considered desirable that students after qualifying into the profession as M.R.C.V.S. should undertake further training to enter certain fields of work, it would not be unreasonable to require those who intend making teaching and research their vocation to undertake post-graduate instruction in education, in the principles and practice of instruction and in methods of research. I fear that it is too often assumed that the capacity to instruct and to perform research is inherent in many people, but there are conditions relating to, say, the practice of instruction which must be adhered to by all those engaged in the teaching of veterinary science, just as there are conditions governing those engaged in secondary school instruction. That is a point which, in my opinion, appears not to have received the attention it should, particularly when appointments are made. The recognised way, of course, is for a young qualified man to accept the most junior post and to work himself through the various grades. In this way he serves a form of apprenticeship and his capacity for instruction, as well as for investigation, is noted at each stage. Unfortunately there must be many cases in which this procedure has not been followed. What I always feel in considering the newly-qualified man is that both parties expect too much; on the one hand, the young professional man expects the consideration (stipend included) that rightly belongs to those much older and, on the other hand, employers expect more than they have any right reasonably to expect at that stage. The newly-qualified person is just a foundation upon which the edifice has still to be erected.

Discussion

Mr. J. H. Wynne, who opened the discussion, said he wished to thank Professor Share-Jones for his very excellent address. He was sorry that there were not more members present to have heard it and discussed the questions raised, for there were some things touched upon in the address which must have exercised their minds greatly. As an example, he would mention the question of the neglect of important agricultural centres by the veterinary practitioner. Why was it that no practitioner would venture to establish himself in these towns? He had been told that it was impossible for a practitioner to find sufficient work in those areas. No doubt the depression which existed in the agricultural industry was to some extent responsible, but it was regrettable if was really true that there was not sufficient scope for a veterinary surgeon in such rural areas. With regard to openings in the profession generally, it was apparent that women were entering the ranks in increasing numbers, and he felt that in dealing with small animals, and possibly with large animals also, they would open up new avenues. The speaker disagreed with Professor Share-Jones regarding the importance of Parasitology as a subject in the curriculum. He thought this subject should take the place which the Committee had allotted to it. With regard to the suggestions for a system of national insurance of animals, the speaker expressed himself in complete agreement. This was a matter which Professor Share-Jones had been seeking to bring about for some considerable time, and he thought the profession would appreciate the benefits which would be theirs and would support a scheme if they were properly informed of the import of such a measure. If the next Congress were to be held in Llandudno he would like to see Professor Share-Jones reading a paper on the subject before the profession. They would remember that the medical men were at one time opposed to the National Insurance Act, but to-day they were unanimously in favour of it. As in the medical world, so in the veterinary, the profession would undoubtedly benefit. He thanked Professor Share-Jones for coming over and addressing them that afternoon.

Mr. Wynn Lloyd, who followed, said he was reminded of a statement which Sir Frederick FitzWygram once made, that it was a difficult matter for a non-professional man to maintain a discussion with a professional man, for the latter was an expert in his own domain. To many of those present the days of their professional education were but a memory, and it was not easy to discuss details. He failed to see, however, that Professor Share-Jones had made out his case and justified the extension of the curriculum to five years. How could it be justified, when they knew that few veterinary surgeons encouraged their sons to enter the profession? Referring to the question of terrain, he thought Professor Share-Jones had exaggerated the work available to the practitioner among sheep. They must remember that sheep did not extend to the top of the mountains, that their troubles were largely periodics, and that these were dealt with by the proprietary preparations. With regard to the general scientific training of the veterinarian, he thought that it was quite the equal of that of the medical man. It required considerable propaganda, however, to make this known, and he thought that much could be done by individual effort in this matter. He had recently had an opportunity of speaking at a meeting of meat traders, and he was glad to think that he had convinced them that the veterinary surgeon was the person best qualified to advise them on meat inspection matters.

Mr. F. H. Manley, on the invitation of the chairman, gave a short account of the main duties of

the veterinarian in Cyprus. There was no veterinary school in the island, so that educational problems did not arise there. A considerable amount of work, however, was carried out among the agriculturists by the Government officers. He himself worked largely in the laboratory, where a quantity of sera and vaccines was prepared to combat infectious diseases ocurring on the island. Anthrax was prevalent there, and, as in the case of contagious abortion and Malta fever, vaccination was employed against it. Owing to the extent of the export trade, strict supervision of all animals entering or leaving the island was enforced, and dogs were kept in quarantine for a period after arrival as a precaution against rabies.

Mr. W. O. Jones asked Professor Share-Jones his opinion regarding the tendency to institute small insurance companies which was in evidence to-day.

Professor Share-Jones, in replying, thanked Mr. Wynne and the other members who had taken part in the discussion for their remarks and their constructive criticism. His opinion of Wales as a livestock producing country was based on his personal experience as a farmer, confirmed by what was found in Blue Books. It would be found that in North Wales six-sevenths of the land was devoted to Animal Husbandry and one-seventh was arable. Having been born on a farm in Wales, and had a life's experience of Welsh farming—he farmed now—he considered himself qualified to express his opinion on Animal Husbandry there. It had been officially declared that Wales was and must always remain essentially a livestock country, and he challenged anyone to deny that Wales was the best mutton-producing country. With regard to the subject of Parasitology, he did not in the least deny its importance, but he contended that it should not be elevated to the same plane as, say, Medicine or Surgery, which was what might be inferred from the fact that a separate table was to be given to it at the examinations. Much Parasitology was taken in any substantial course for Zoology, such, for instance, as in a course for any good degree, and both theoretical and practical work were undertaken. Much, again, was taken, as it should be taken in Medicine, in association with diseases and their treatment. What he did not approve was any step that might subtract from the importance of Veterinary Medicine and Surgery, which, in the end, were the main subjects of their licence. The opinion he had seen expressed regarding the tuition in post-graduate courses was also taken from a Blue Book, and had heard a well-known member of our profession admit it later. In reply to Mr. W. O. Jones, who spoke of the institution of small insurance groups; this, in his view, was a retrograde movement, for they created further vested interests which would have to be removed before a complete scheme could be launched. This would be a great obstacle to be overcome, but he felt confident that time would see it through and that when established it would mean the dawn of a new era in the history of veterinary science.

Traverse Colantha Walker, a Holstein cow, was calved in 1916 and died in 1932. In nine lactations she produced a total of 200,114 pounds of milk—7,526 pounds of butter fat. This is sufficient milk to rear 1,000 calves to weaning age. A stone monument has been erected for her at Traverse City, Michigan. She was proclaimed the life-time champion of the Holstein breed.

CHLOROFORM ANÆSTHESIA IN THE CAT

HENRY GRAY, M.R.C.V.S.

It is generally considered, not only by veterinary surgeons, but also by physiologists, that chloroform as an anæsthetic for the cat is dangerous. This is true unless it is used with great care and patience, and not in too great a concentration. All cats are not alike in susceptibility, and in consequence much circumspection is required. It is much easier to get nervous animals under the influence of the anæsthetic than quiet animals, which, under normal conditions, hold their breath longer and are therefore longer in becoming unconscious. Young animals go under more quickly than do older ones, but even then there are many exceptions to the rule.

The simpler the method used in the administration of chloroform the safer it would seem to be. Some advise a mixture of chloroform and alcohol, others one of alcohol, chloroform and æther. These, however, merely dilute the chloroform and therefore have little or no anæsthetising power. I am satisfied with a small quantity of pure chloroform given from a jam jar, Cerebos salt canister or a round-rimmed aluminium canister, of 2 lb. or quart capacity, having at the bottom a thin layer of cotton-wool on which is sprinkled a drachm of the drug for kittens and one-and-a-half drachms for adults. The animal's head is placed or held in the apparatus and when the subject begins to breathe regularly and more deeply the canister is drawn back so that the muzzle just rests in the opening.

The animal may be held by the scruff of the neck when it is standing on its four limbs, and when it offers resistance (as it will do) the apparatus is withdrawn for a second or two and then reapplied from time to time until the subject begins to lose consciousness. At that stage it can be placed on its left side and released to inhale the anæsthetic with the muzzle just resting at the entrance of the canister or jar. I do not consider the animal to be anæsthetised sufficiently to undergo the operation until all movement of the limbs has ceased and there is no longer any response to the pedal reflex. This cessation, or rather deprivation, of the pedal reflex is ascertained by seizing the hind foot between thumb and fore-finger and drawing the limb from the body and compressing the pad. If there is no retraction or attempt on the part of the animal to withdraw the limb during the compression and the limb rests passively when it is released, then it is time to commence the operation. Although I have on many occasions drawn attention to this reflex, no reference is made to it in our text-books, nor would it appear

to be taught in the Colleges: at all events, I have gathered, for several years, from many students and assistants I have met, that they were not taught it. There are other reflexes such as the ciliary, palpebral, mental (chin) and aural, but they are not of much practical importance to the practitioner. The reflex to which great attention is usually paid is the corneal, but it is not reliable, for, in the dog at least, it may have disappeared long before struggling or screaming has been overcome or the breathing has become regular and quiet.

If the operation is of long duration, half-a-drachm or a drachm of chloroform should be added as soon as the first dose has become exhausted. By this method I have kept cats four or five hours in a state of anæsthesia without touching them beyond when applying a fresh supply of chloroform.

The *second* method, and the one I generally adopt, is for an assistant to hold the fore-limbs of the cat with the right hand and the hind legs with the left—the animal lying on its left side—while the administrator of the chloroform holds the scruff of the neck with the left hand and the canister in the right.

The *third* method is that of forcibly holding the body of the cat to one's side while the scruff of the neck is grasped by the left hand and the canister by the right hand of the one holding the cat. The animal struggles, but soon becomes exhausted and does not offer any resistance when it is let go, and commences to inhale the chloroform, with the muzzle resting just inside the canister or jar.

I do not now make use of the lethal chamber or a box to administer chloroform, as it takes too much chloroform and too long to get the animal under its influence.

With a metal, glass or earthenware apparatus one can sterilise it every time it is used on a fresh cat and thus prevent transmission of distemper or infectious enteritis should the apparatus have been used unknowingly on an animal suffering from the initial or recovering stage of either infection.

Some cats with regular breathing suddenly cease to continue to breathe in this manner. As a rule, in such cases, if the chloroform is taken away for a minute the breathing commences again and the inhalation may then be allowed to proceed, when there is usually no further trouble. If the respiratory effort does not reappear after two or three minutes Laborde's method—traction and relaxation of the tongue for a few times—may be adopted. If this has not the desired effect, recourse may then be had to artificial respiration, which I find is rarely required.

The mere arrest of respiration is not in itself dangerous, especially if the tongue or lips quiver or are pink, plump and glistening and the pupils contract and dilate. In such cases early stimulation or over stimulation may do more harm than good. It is a good practice not to lift or upset an animal too soon after the removal of the anæsthetic, but let it remain until consciousness is being or is restored. Sometimes urination is followed by collapse and sometimes by erection of the dorsal pelage. This latter is a fatal sign.

Very fat animals are the worst subjects for anæsthetisation. Occasionally, almost immediately after the chloroform is inhaled or when the animal is recovering from its effects, the subject gives a long cry and takes a prolonged breath, advances its fore-limbs stiffly, and throws back its head. These gasps become intermittent with a more or less long interval, the tongue and mucous membrane of the mouth are pallid but show large or distended purple veins, and the back of the throat is covered with a spumous or frothy mucus. Recourse should be had without delay to an intracardiac or intrathoracic injection of 1/400 to 1/200 grain of strychnine sulphate, the throat cleared of mucus and artificial respiration tried. Not infrequently this condition follows on sneezing, especially when the efforts are intense. On the other hand, many cats sneeze without this serious happening. It is undoubtedly a reflex action and unless relieved may continue under artificial respiration for at least half-an-hour before death takes place. It does not occur when the animal is fully under the influence of the drug.

After 50 years' experience with the use of various anæsthetics for the cat I have come to the conclusion that chloroform inhalation, used with care and skill, is the quickest and most convenient agent for the production of anæsthesia. As soon as it ceases, by withdrawal of the agent, the animal commences to regain consciousness and is, within half-an-hour, fit to be returned to its owner if desired. There is no more risk with it than with any other drug. It can be withdrawn at will, which is not the case with intravenous, subcutaneous, intrathoracic, intratracheal or intraperitoneal injections of some of the hypnotic agents, which must be given in relatively large doses in order to anæsthetise the animal, which takes a long time to recover from their effects.

The greatest danger of chloroform is that one sometimes becomes too confident in consequence of its success in a long series of cases and hence one is not always so careful as one should be in its continued administration. Experience is often fallacious, so that in the long run one is taught that judgment is difficult. In anæsthesia of all animals one should be always on the lookout for what might occur, or rather what will probably happen is care is relaxed. Unfortunately, wisdom comes late in life.

Why deaths from anæsthetics are more frequent in veterinary practice than they are in human medical practice is a matter requiring examination. More than 10,000 human beings have been anæsthetised by one administrator without a single death.

SHIRE HORSE SOCIETY

The question of the future venue of the Shire Horse Show was referred to at the annual meeting of the Shire Horse Society in London. Mr. Tom Forshaw, the outgoing president, said that the cost of the Agricultural Hall was too much for the society, and if some other arrangement could not be arrived at with the company when the present contract came to an end in 1935 the Society would have to seek another place to hold the show. But it would be unwise to leave London.

Speaking of the class of animal bred to-day, Mr. Forshaw said that there had been a great improvement in the type of animal which appears at the show. When he first visited the show many years ago there used to be one of two good animals in a class together with a lot of "tail enders."

The annual report indicated that a loss of £668 had been sustained on the year's working, but there had been a considerable appreciation in the Society's investments, with the result that the balance in favour of the Society at the end of the financial year was £19,813, as compared with £17,977 at the close of 1931. The Society, with a membership of 3,734, still remained the largest breed society. Of the 1,211 heavy horse licences issued in 1932, 853 were allotted to Shires.

It was announced that the Ministry of Agriculture had approved the allocation of the sum of £9,950 in grants to heavy horse breeding societies during the coming year.

Sir E. D. Stern will succeed Mr. Tom Forshaw as president.

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THE SHIRE SHOW: LIVERPOOL CORPORATION'S SUCCESSES.

There was again a fine array of commercial horses at the fifty-fourth Annual Show of the Shire Horse Society. Fourteen came forward in the open class for single horses, and the first prize was awarded to the Liverpool Corporation for Demon, a big bay with excellent legs and feet. Like the other exhibit from the Liverpool Corporation, which was reserve, he was shown in a Dunlop-tyred cart.

Six pairs came into the ring, and one of them was Messrs. Mann, Crossman and Paulin's Norman, the champion gelding, and Highfield 5th, in the in-hand class. Messrs. Young and Co.'s Brewery sent Bower King John and Wandle Jonathan, and eventually the decision was in favour of the latter, and Norman and his mate divided the premium honours with the Liverpool Corporation's brown show tandem.

The Liverpool Corporation's Demon won the Borough Council class, with Diplomacy, from the same stables, second. These successes by representatives of the stud so long associated in a similar connection with the name of Mr. Eaton Jones, F.R.C.V.S., show that the tradition is being finely upheld under the care of his successor in the chief veterinary officership of Liverpool, Capt. A. W. Noel Pillers, F.R.C.V.S., D.V.S.M.

THE PROVISION OF GRANTS FOR HORSE BREEDING*

SIR JOHN MOORE, K.C.M.G., C.B., F.R.C.V.S.

I feel deeply grateful to you all, as Members of the Parliamentary Agricultural Committee of the House of Commons, for the opportunity extended to me in addressing you on a subject which, it will be acknowledged, is of vital importance to our agricultural industry and deserving of a front place in our agricultural policy.

I take as my text the following extract from the report of the Committee on National Expenditure, July, 1931.

> "*Vote* 6. *Subhead P. Light Horse Breeding.* 246. This Scheme provides for the payment of premiums to breeders to encourage the production of a type of horse required for the Army. The provision made in estimates for 1931 is £30,000. *In view of the diminishing importance of the horse to the Army,* we recommend that this subsidy should be discontinued."

As you know, the Committee's recommendation was adopted by Government.

First of all, as one who has had an experience of 32 years in connection with horses for our Army, both in Peace and War, I wish categorically to deny, and to deny with all the vehemence that I can command, the unjustifiable assertion "of the diminishing importance of the horse to the Army." Furthermore, though it may be the opinion of the May Economy Committee, it is certainly not the opinion of the Army, and the latter, being in the position of the piper, has every valid reason to call the tune.

However, it is not altogether from the Army point of view that I raise the question of horse-breeding and grants in aid thereof, good customer though the Army undoubtedly is. There are other interests involved. We have to consider the farmer individually and collectively. The horse in his sphere of agriculture is by no means a diminishing element. In industrial activity there is a wide and increasing field for him both from the utility and economic points of view, in spite of the mechanical age in which we live. In the domain of sport, too, the horse reigns supreme. It is idle, therefore, for a Commission to presume without sufficient evidence that horses are of diminishing importance for any designed purpose or requirement, be it defence of the realm, industrial undertakings on an economic basis, agriculture run at a profit, or any other sphere in which horses play a necessary part. They are bred for the specific purpose of work, and are therefore entitled, as domestic entities, to State consideration.

* An address given to the Conservative Parliamentary Agricultural Committee, House of Commons, Tuesday, February 21st, 1933.

In a short pamphlet entitled "The Encouragement of Horse Breeding," copies of which are in your possession, I have set out as briefly as I could, certain aspects in relation to horse-breeding and the desirability of that encouragement which unquestionably should be the urgent business of a State. The purpose of my present address is to amplify my remarks in that pamphlet in the hope that I may receive the support of your Committee in an endeavour to bring before our Ministers of State a matter replete with possibilities to the well-being of our oldest industry, *viz.*, agriculture, and all that it stands for.

In the first place, it will be necessary for me to inform you in somewhat greater detail of the origin and progress of grants for horse-breeding in general.

The scheme for the encouragement of light horse breeding was initiated by the late Sir Walter Gilbey, Bart., and other gentlemen, in 1885, at the Royal Show at Newcastle, when premiums at the rates of one of £100, three of £50, and two of £25 were offered for thoroughbred stallions to serve 20 farmers' mares at a fee not exceeding £2 10s. In 1886, the races known as the "Queen's Plates" (originated by Queen Anne) were abolished, realising certain money which, together with a Government grant, enabled the Royal Commission on Horse Breeding, appointed in 1889, to take over the Scheme, to provide 22 Queen's Premiums of £200 each, the funds coming from the Privy Purse (£3,000) and £2,000 from the Treasury. In subsequent years the premiums were increased to 28, and the amounts reduced to £150 each. In 1911, the Ministry of Agriculture took over control, providing 50 King's Premiums of an average value of £150, based on a premium of £50 payable on award, service fees at £1 11s. 6d. after the close of the service season, and foal fees of 12s. 6d. payable in the following year. Premiums progressively went up from £100 guineas in 1912, to £150 in 1915, and £200 in 1920, making in the last year an average value of £345, including service fees of £1 for 65 mares, and foaling fees of £2 for an average number of 40 foals.

Altogether, the total expenditure on light horse breeding during the 11 years 1911-12 to 1921-22 was £300,362, the average spent each year being £27,305. Expenditure was financed from the Development Fund up to March 31st, 1916, when it was transferred to the Ministry's Vote. It is interesting to note that during that period the grant for ponies was advanced from £200 in 1911-12 to £1,200 in 1914-15, and stood at £3,252 in 1921-22.

As I have explained in my pamphlet, when economy in public expenditure became imperative in the years immediately following the Great War, the Ministry of Agriculture considered that the Scheme could no longer be borne on the Vote for the Ministry, and it was transferred on April 1st, 1924 to the administration of the War Office, and the Scheme continued at the expense of the Army Vote. Q.M.G.4B, a new section of the Remount Directorate, was formed to carry on the administration. Unfortunately for the Army, as well as the country generally, operations have been closed down after seven years of successful work in producing within Great Britain a type of animal suitable for War Department requirements.

Previous to the grant being curtailed in 1931, the premiums offered were as follows:—

75	King's Premiums at £270 each ..	£20,250
5	Scottish Premiums at £270 each ...	1,350
6	Super Premiums at £100 each ...	600
18	War Office Premiums at £170 each	3,060
		£25,260

The estimated value of £270 for each premium was based as follows:—

Premium of £150, half paid at the time of award, and the other half after the close of the service season	£150
Foal fee of £3 for each mare which foals (average 40) paid after the close of the foaling season	£120
In addition, a service fee of £2 a mare (average 80) chargeable to the owner	£160
	£430

When only £8,000 was granted last year 75 Premiums of £100 each were offered (*viz.*, £50 on award and £50 at the close of the season).

From 1917 to 1932 (16 years) the results were as follows:—

Total number of mares served by King's Premium Stallions	73,798
Total number of foals produced ...	37,449
Total number of mares served by War Office and Ministry Premium Stallions	26,579
Total number of foals produced ...	13,137
or a grand total of 1,426 stallions serving	80,377

mares and producing 50,586 foals.

To obviate the disastrous effects resulting from the withdrawal of the Government grant under the present scheme of light horse breeding, which had been built upon the provision of Government support as I have indicated, the Hunters' Improvement and National Light Horse Breeding Society has decided to draw on its own very limited reserve funds and to offer 48 Premiums of £50 each for thoroughbred stallions to travel England and Wales and two for Scotland at £40 each; service for each mare to be £2 with a Groom's fee of 2s. 6d. payable in advance by the owner, the total number of mares to be served not to exceed 80.

The Yorkshire Agricultural Society has decided to supplement each Premium allocated

to the County of Yorkshire by the Hunters' Improvement Society with a grant of £50, and to give an extra Premium of £100. It is understood that Kent is taking similar action.

It must, however, be distinctly understood that such measures are purely palliative, and that Government must not shirk responsibility for a Scheme which they sponsored.

In connection with light horse breeding, I am anxious to put in a strong plea for pony breeding, particularly for our well-known mountain and moorland breeds.

Up to 1931, the total amount of grants for pony stallion premiums was approximately £1,750 per annum. Five Premiums of £60 each were awarded for Fell ponies, with foal fees of approximately £20, but with no service fees. Dale ponies received four Premiums of £45 each with service fees averaging £25 each, and foal fees averaging £10 each, the total value of each Premium being roughly £80. Thirteen Premiums of £40, with service fees and foal fees averaging £25 and £30 respectively, were given to Welsh cobs, the total value of each Premium approximating £80. Welsh roadsters were awarded five or six Premiums of £3 to £8 each, and 15 stallions of the New Forest breed received premiums of £3 each to run on the Forest and serve mares.

The complete withdrawal of grants to pony stallion owners will kill an industry of great merit and value. The breeding of ponies is entirely in the hands of the small and poor farmer and fellsman. Local Pony Breed Societies have not sufficient funds to give Premiums on their own account; indeed, the Government Grants were practically their sole means of support. The consequence will be that promising young colts will be castrated and inbreeding will complete ruination. Take, for instance, the Fells pony and the Dales pony breeds. I am informed by Mr. Roy B. Charlton, of the Linnels, Hexham-on-Tyne, who is *the* authority on both these breeds, that there are not at the present moment 20 living entire Fell ponies, including nine in his possession, and also including youngsters born in 1932. It is most necessary to get their numbers of stallions up, and at once. There is a fear, too, that the Dales pony may lose his individuality by crossing with the Clydesdale stallion, a circumstance which happened a considerable time ago, and which by dint of careful selection the Dales Improvement Society eventually eliminated.

I therefore beg of the Ministry of Agriculture to give earnest thought to the grading up of our pony breeds. Apart from their suitability for children as riding ponies, and for work in mines, there is a demand for Fell pony stallions for improving Continental pony stock.

With regard to heavy horse breeding, grants were initiated in 1914-15 by amounts totalling £3,533 in that year. Expenditure was financed from the Development Fund up to the year ending March 31st, 1919, when it fell on the Vote of the Ministry of Agriculture. On transfer, grants for heavy horse breeding stood at £6,542 and approximately they remained about that figure up to 1921-22, when grants went up to £7,250. The maximum direct grant per stallion payable to Heavy Horse Societies increased from £40 to £60 in 1930, but these were reduced again in 1931 to £40, so that with the number of 159 horse stallions in the latter year, the direct grants would total 159 stallions × £40—£6,360, as against 140 stallions × £60—£8,400 in 1930 (*vide* Live Stock Improvement Scheme, Report for the year ended March 31st, 1932.

The Ministry of Agriculture estimates for the financial year 1933 have not yet been finally settled, but a sum of £9,950 has been provisionally included in respect of grants to Heavy Horse Societies.

In discussing matters relative to horse breeding and horse population generally, it is a regrettable circumstance that there is no recent census of horses and ponies in Great Britain. The only published returns refer to horses on agricultural holdings. The *Journal of the Ministry of Agriculture* of September, 1932, page 568, gives the total number of horses in England and Wales at 916,600 in 1932, a decrease of 21,900 from 1931, but a satisfactory item of information from that Return is an increase of 1,300 animals under one year, indicating a turn in the tide in favour of the "rent payer." There are no recent statistics giving the number of horses engaged in commerce, ponies, cobs and horses used for riding, and young stock other than those of agriculture. I suggest that the Board of Trade should seriously consider a complete census of all categories of horses, young and old, in Great Britain in the near future. The latest statistical returns which I possess are for 1924, and give the total number of horses of all ages and classes in Great Britain as 1,892,205.

I now ask myself the practical, straightforward question, "What benefits are attachable to horse-breeding, and to a well-ordered, systematic State-supported policy in regard thereto?"

My reply is that the benefits are enormous. As I have said before, the horse bred on the farm is a rent payer, and leaves a greater profit than any other farm animal. The cost to a farmer for breeding and rearing a Shire or Clydesdale horse in England up to but not including his fourth year works out at about £34 or £35. A Clydesdale in Scotland is perhaps a trifle more. Broken in at 2½ and 2¾ years they earn their own keep as three year olds and four year olds. At five years old they command a good price in the industrial market, *i.e.*, from £50 to £75. Under a premium system and a reasonably low service fee, the cost to the producer would be relatively less. The suffolk Punch is a comparatively

cheap horse to produce. He goes to work at two years old, and at four years old he finds a market at from £50 to £60, the best realising up to £100. The demand for good working horses in cities and towns is well maintained, while the introduction of the wheat quota scheme has resulted in increased requirement for work on the land. The current high price of petrol has rendered the use of mechanical traction almost impossible, and as I have shewn in my pamphlet, farm work can be done much cheaper by horse labour than by motor. If the proposal to tax heavy lorries to the extent recommended by the recent Commission is brought into effect, there will be a more general return to the horse for both farm and commercial purposes. It has been definitely proved that for short journeys with frequent stops, the horse is much cheaper than the motor in the ordinary distributive trades of cities and towns. Economy is therefore a prime element in horse production.

Under the Light Horse Breeding Scheme, the production of light horses was always made easy for the producer owning a half-bred mare. The prices paid by the Army as approximately stated in my pamphlet, certainly represent profit to the producer, to say nothing of the better profits that might be obtained in the private market. I am much impressed with the type of Artillery horses now purchased by the Army. They are smaller than when I was associated with Remount purchase. Therein lies economy of feeding in the Army, and a team of six small horses is equally efficient as a team of bigger animals. Hunter breeding is, of course, a speculative business, and prices are in accordance with what a breeder chooses to ask and what a purchaser is inclined to give.

There is a good deal of profit in ponies. Bred on mountain and moorland they cost very little in keep per annum, roaming wild up to 2½ and 3½ years old, even in winter time. The Fell pony, popular in Northumberland and Durham mines, up to a few years ago used to be sold at £30, having probably passed through a dealer's hands at Brough Hill Fair at from £14 to £22. Welsh mountain-bred ponies of 13 hands 2-in. realise about £23 or £30 for Welsh mines.

But benefit to agriculture and to the agricultural community is not confined to actual profit in horse production. There is the wider aspect or the growth of crops requisite for the food and comfort of horses. In my pamphlet I have estimated that the food bill for 40,000 hunters over five years in our various Hunts exceeds £2,000,000 annually. If we calculate the number of horses engaged in commerce at the conservative estimate of 300,000, and the cost of food and bedding at £40 per annum, we arrive at the sum of £12,000,000. The cost of feeding and bedding 13,327 horses of the Army (last year's average strength) at the approximate cost of 7s. 3d. per week, represents a sum of approximately £251,000 per annum. Then again, the food required for horses on agricultural holdings in Great Britain (1,067,170 in 1932) is no mean item, even if they do counterbalance their keep by their work. So that horse breeding creates an enormous market in Great Britain to the credit side of its agricultural community. Benefit does not even stop at the growth of crops. Even the output of manure would approximate an annual value of £1,000,000. We must also take into account the large number of agricultural workers. Statistical Returns for 1931 and 1932 give the total number of workers of all classes at 716,600 and 697,100 respectively.

This brings me to the question of policy to be pursued. I regret exceedingly that Government should have gone to the extreme limit of decapitation of so important an industry as horse breeding, and I strongly urge a reversal of policy, and a trumpet call of "Back to the Horse." There is no economy in the present attitude. It only spells despair and disaster. Some solution must be found, and that with the least possible delay. London at the present moment is plastered with the words "Spend for Employment." The same label might reasonably be attached to horse breeding. It is very galling to read from the buff leaflet issued by the National Horse Association—which I sent for your information—what other countries are doing towards fostering horse breeding operations, and we in this country, like the proverbial ostrich, burying our heads in the sand, or adopting a policy of *laissez-faire*.

It is, however, no good making a complaint, or kicking against the pricks, unless some remedy can be suggested. I wish, therefore, to indicate certain ways out of the unhappy impasse, or favourable avenues which might be explored to put horse breeding on a solid foundation and to make it a paying concern. It will be agreed that it cannot be done without money and organised effort.

I have given the matter considerable thought and put forward the following suggestions:—

1. Sugar Beet Subsidy.—State expenditure under this heading for the years 1931-32 and 1932-33 amounts to £2,375,000 and £2,400,000 respectively. Surely this is out of all proportion in benefit to British agriculture to what would be conferred through the medium of grants for subsidising of stallions for various classes under Horse Breeding Schemes. I have no hesitation in saying that a slice might be taken out of the 1932-33 subsidy for sugar beet production and allocated to horse breeding. Even the £25,000 difference between 1931-32 and 1932-33 estimates would sufficiently meet the case. In any case, a sugar beet subsidy of £2,400,000 is, in my opinion, wicked in these days of financial stringency.

2. Deficiency Payments under the Wheat Act, 1932.—The difference between "Standard price" and "Ascertained average price" is problematical, and no doubt will always be a "movable feast," but the point I wish to make is that horses entering so much into the cultivation of the land and benefits accruing under a wheat quota system, it is quite right, and expedient, that they should have consideration and a share in the profits of cereal production.

3. Totalisators and Sweepstakes.—When totalisators were first inaugurated at horse-racing centres in this country a great parade was made of the benefits which would result therefrom. Viscount D'Abernon, speaking at the Annual Meeting of the Thoroughbred Breeders' Association at Newmarket, in 1929, anticipated that within one year of its working on all race courses in this country, the totalisator would have a turnover of £66,000,000, and that a levy at the rate of 6 per cent. would yield about £4,000,000 annually for expenditure on approved objects, such objects being the improvement of race-courses, reduction of entrance fees, *support of horse-breeding,* and for charitable purposes. Such laudable objects have not materialised, and so far as horse-breeding is concerned, the totalisator is an absolute dead letter.

The advent of sweepstakes on classic races is quite a different matter, and it is on this method of raising money that I wish to make a few remarks. I very strongly deprecate all these millions of money leaving Great Britain for the support of charitable objects in the Irish Free State, when it could be put to more appropriate use in this country. I am sure, too, that there are many others who share this view, and would prefer to have it applied to home needs.

I am convinced that sweepstakes run under proper auspices on, say, two classic races—the Derby and the Grand National Steeplechase—would be an easy and agreeable way for establishing funds for the encouragement of horse-breeding. Of course, I know that such would require legislative enactment, but still, the horse being the central figure of sweepstakes he might be given the chance of working out his own salvation. There would be no need to resort to the elaborate procedure as pursued in the Irish Free State. All that would be required is an empty, roomy mansion in London (I know of one), a reputable Committee, a moderately sized clerical staff to issue tickets and keep accounts; and on the day of the draw, a small glass receptacle containing the names of the horses, a large churn into which could be placed small cardboard discs on which were written the numbers corresponding to the tickets issued, the churn to be revolved by hand by one member of the Committee, and a numbered disc to be extracted from the manhole of the churn by another member of the Committee as the names of the horses were called out. This was the procedure followed by the Calcutta Turf Club, when, as a member of that Club, I assisted in the drawing of Derby Sweeps about 40 years ago.

In the event of sweepstakes being adopted in this country, I should be pleased to pay off a debt I owe to horses by giving my services without any emolument whatever.

My tale is now told, and I thank you for your patient hearing.

Conditions Associated with Parturition in the Cow

West of Scotland Division Discussion on Paper by Mr. Hugh Begg, Junr.

In opening the discussion Mr. D. Campbell thanked the essayist for bringing forward such an interesting and debatable subject.

Taking the question in the first part of the paper—Should all cows be cleansed?—to that he would reply definitely "yes." It would be safe to say that more risk was taken in leaving a rotting afterbirth to come away than to remove it manually, and attempt to leave the uterus in a condition of cleanliness. As to when this operation should be carried out was a matter for consideration in each case.

He considered that douching of the uterus was of more benefit than using pessaries.

Metritis was possibly one of the conditions which gave the practitioner most trouble and worry and least result; no line of treatment would give consistent results, but it was almost essential, in the first instance, to syphon off any stinking fluid lodged in the uterus.

The term "retention of the second cleansing" conveyed nothing, and in his opinion there was no connection between this "condition" and acetonæmia. There was great difficulty in detecting the smell of acetone and he could not say that he had always been able to detect it in many undoubted cases of acetonæmia. Inflation of the udder had not proved successful in his hands. He had found benefit from using 1 oz. formalin, ½ lb. common salt and 3-6 lbs. of treacle administered per stomach tube. Large quantities of treacle were very useful in this condition. Results had been most satisfactory where ½ lb. glucose dissolved in warm water was used.

Acetonæmia and milk fever were, in his opinion, distinct conditions. Glucose was of no value in milk fever; and, as he had found it, inflation was of no value in acetoneæmia. The nervous symptoms sometimes seen in acetoneæmia were, to his mind, a superimposed form of milk fever.

In dealing with cases of eversion of the uterus the biggest part of the task was getting the animal into the most suitable position; where possible, it was good practice to sling by the hocks and put a bale of straw under the loins. Regurgitation of food was a danger to be guarded against when the animal was in this position.

Again, he wished to thank Mr. Begg for his able contribution to the many papers of interest which had been presented to their Division.

* Discussion at the Annual General Meeting held at Glasgow on January 25th, 1933, on a paper on this subject presented to the Division at Glasgow on November 23rd, 1932, by Mr. Hugh Begg, Junr., F.R.C.V.S., D.V.S.M. This paper was reproduced in our issue of December 24th, 1932 (*12*, 52, pp. 1509—1513).

Mr. H. H. Brodie disagreed with the suggestion that amputation should be carried out in cases where it was considered necessary to preserve an animal's life till the morning when the uterus was everted and badly damaged. If this was done under a general anæsthetic then the carcass would be spoiled, as the chloroform would not have time to become eliminated from the system. Provided the carcass was not fevered it would probably be much more practicable to rouse a butcher and have the animal slaughtered and the carcass dressed forthwith.

In dealing with eversion of the uterus, it was necessary to have the hind quarters raised, and in the absence of slings it was often practicable to obtain a cheese bench, which could be slipped under the animal, a figure-of-eight tie being first put round the hocks to prevent the animal jumping across.

Where the os was very much contracted and it was desired to gain entrance to the womb, a little extract of belladonna smeared over the os worked wonders if one waited a quarter of an hour.

He advocated douching of the uterus after "cleansing." In using iodoform it was necessary to warn the farmer not to use the milk for some days. In treating sterility the great thing, to his mind, was to get the uterus and vagina in an alkaline condition by douching out two or three times within an hour previous to "service" with physiological salt solution and finally with sodium bicarbonate.

Big quantities of treacle, given some time before calving, were very beneficial in preventing milk fever. No salts must be given in this condition, as he generally found that the cases of milk fever which had been given salts or "red drench" were the cases which died. He also would like to thank the essayist for his able paper.

Mr. H. M. Wilson (Cupar) said that he invariably got good results from the use of iodoform pessaries. In acetonæmia he used treacle in conjunction with nux vomica, sodium bicarbonate, etc.

Mr. John Taylor stressed the necessity of using a tracheotomy tube in cattle when slinging by the hocks to return an everted uterus.

He did not believe in douching at any time, finding more benefit from the use of pessaries.

Mr. R. Renfrew reported good results from douching: in many cases the temperature came down shortly afterwards and the animal went on without further treatment.

He found that in many cases of eversion, where only one horn was involved, it was easy to replace by involuting the everted horn instead of starting at the point nearest the vulva.

Mr. Alex. Thomson said that he considered that no set time could be given for cleansing a cow: if the animal was off its food, or the temperature high, it was certainly time the cleansing was removed, even though it was only 24 hours after calving. Douching, to his mind, was the most rational procedure in a case of metritis; all other septic foci invariably benefitted from drainage.

Prof. Robb observed that while it was true that he submitted a number of headings for Mr. Begg's consideration, around which he hoped the eessayist could build a paper, he had hoped that, from the experience Mr. Begg had gained since qualifying, he would hear something quite new and the opposite to what he had been taught; while Mr. Begg had undoubtedly amplified the teaching he received, the speaker unfortunately could not detect any great breakaway. He therefore found some difficulty in doing anything but accord the paper general approval.

When he (Prof. Robb) put the question "should cows be 'cleansed?'" he did so to see if Mr. Begg could bring any proof that the results were better after non-interference. However, they found from his paper that he believed in a sane and rational interference, and in that he agreed with him.

He further agreed with him when he said that each case presented its own problem, and it was only after examination that the surgeon could decide on the action he thought he should take. They all had observed that Mr. Begg used iodoform in ʒiv to ʒviii carried in a suspension of oil. He would be glad to know if Mr. Begg had known of iodoform being absorbed and tainting the cow's milk. That was said by some to be a risk in the use of iodoform, and that, owing to the general contamination of the milk of the herd, the surgeon might lay himself open to an action for damages. On the other hand, the authorities might ask the owner what he meant when he used the milk from a cow suffering from a "septic metritis."

He would like to know if Mr. Robb had had any experience of the use of colloidal manganese hydroxide in the treatment of retained fœtal membranes. He had read that 2 pints of a 3 per cent. solution, injected cold into the uterus, resulted in uterine contraction taking place, and expulsion of the membranes. That method of treatment was said to be of special value in those cases where the os was practically closed. It was further believed to autolyse those membranes which could not be expelled. The products were absorbed without ill effects. Another method of applying that drug was in the form of a paste smeared over the uterine walls.

When the essayist dealt with metritis and cervicitis, he stated that he used iodine; but while that might clear the condition, might there not be a risk of sterility following? In that class of case might he suggest that Mr. Robb give parenchymatol of zinc leaves a trial and let them know the results at some later date. When he inserted the question "what is meant by retention of the second cleansing?" he did so with the hope that it would stimulate a good discussion. He knew that the phrase was loosely used, as he had heard it used in cases in which there was no doubt that the condition was one of septic metritis. Modern research work certainly showed that in these cases of that so-called disease there was a hypoglycæmia and that recovery followed glucose injections. It was also true that inflation of the udder was beneficial in the neurotic disturbances, possibly by the udder being put out of action, and the drain on the system checked. While the majority of those were called acetonæmia, post-parturient dyspepsia, and retention of the second cleansing, and were chiefly seen in newly-calved cows, he was sure he had read of the same symptoms having been seen in bullocks and heifers.

In the few *post-mortem* examinations he had made on cows that had died from that affection there was only a little blood-stained fluid in the bottom of the uterus of a mucous nature and non-septic; the walls of the uterus appeared normal. The problem which he set Mr. Begg on prolapse of the uterus was "In which position do you prefer to place the cow before attempting to return the organ?" From his answer he could not discover if he had ever attempted with much success the return of the organ while the animal was standing. His own experience had been that it was better to have the hind quarters on a truss of straw, as the majoity of the standing cases went down at the critical moment.

He had had experience with chloroform, chloral, and epidural anæsthesia, and while they were helpful, they were not always as great a help as having the hind quarters elevated. He had been wondering, since he had seen Scott's valise, whether or not the return of the organ while the animal was still on its feet would be attended with greater success than resulted from pressure from the hands.

He wished to congratulate Mr. Begg on his paper, and he thought he was correct in saying that the attendance was much above the average —a fact that must have been very gratifying to him.

Mr. Begg unfortunately had to hurry away and was therefore unable to deal at any length with the points raised in the discussion. Perhaps he may do so through the columns of the *Record* at a future date.

Review

[**The Veterinary Bulletin.** Vol. 3, No. 1 (1933).]

After a year of publication in a monthly form it is time to assess once again the value of *The Veterinary Bulletin*. The present number consists of sixty pages and deals with 130 original papers. The abstracts, as a general rule, are excellent and without being too long, in the majority of cases, they yet are sufficiently full to be readable and to give the reader a fair idea of the contents of the original paper. For the most part the abstractors may be regarded as specialists in the fields they abstract. The range of subjects covered is a wide one and it is subdivided into sections dealing with diseases caused by bacteria and fungi; diseases caused by protozoan parasites; diseases caused by filtrable viruses; diseases caused by metazoan parasites; diseases, general; immunity; public health; physiology; therapeutics; poisons and poisoning; miscellaneous; technique; reports; and book reviews. The general practitioner would probably have preferred the addition of yet another section, *viz.*, one on clinical veterinary medicine. A valuable feature of the present number is a list of veterinary and other publications, which the Imperial Bureau of Animal Health both index and survey. Several hundred British and foreign journals are regularly indexed. A series of intelligent abstracts from such a mass of published information must prove invaluable to the veterinarian abroad, whilst it cannot be of much less value to the research worker in this country. The annual subscription is £2 per annum.

Hoffman reports a case of infestation of a human being with a pair of *Syngamus laryngeus*, normally a parasite of cattle. The infestation was contracted during a visit to a farm and caused a more or less continuous cough. This is the fourth record of this parasite being found in man.

The Veterinary Record

March 11th, 1933.

ANÆSTHESIA IN ANIMALS

THE vitally-interesting story of the introduction into human and animal medicine of the practice of anæsthesia, and of its subsequent application in manifold forms, is perhaps unique in the history of medicine in that it contains little or no controversy concerning its claim to pride of place as a boon to the art. There can be no practitioner who is not ready to admit that anæsthesia has provided a primrose path for both surgeon and patient where previously all was hindrance and hesitation for the former and, for the latter, apprehension in the human subject and universal suffering.

It is particularly gratifying, therefore, to find *The Lancet*, in an annotation [Vol. 1 (5), 1933, page 292] evoked by a discussion on the subject of anæsthesia in animals, at a meeting of the Comparative Section of the Royal Society of Medicine, according recognition to the fact that the knowledge of the science of anæsthesia and the technique of administration for animals do not lag behind those obtaining in human medicine. This is at once a just tribute to veterinary pioneers in this field, a call to the profession as a whole to prosecute further clinical research into animal anæsthesia, and an indication—if such were needed—that each individual veterinarian should appreciate to the full the importance of the subject from the point of view of veterinary practice.

Well versed as our contemporary thus would seem to be in the parallel progress of human and veterinary anæsthesia, the antiquity of the relation may yet have escaped notice, for we find that there is evidence that general anæsthesia was adopted at the Royal Veterinary College in the year 1856—one year only after its introduction into human medicine. It was, however, Professor (now Sir Frederick) Hobday who first systematically studied the actions and uses in animals of the various anæsthetic agents, and who, at the end of the last century, introduced them into veterinary practice.

Since the Great War, the subject has received renewed attention not only in this country but on the Continent and in the United States of America, with the result that there are now available a large number of anæsthetics applicable to the requirements of the particular animal and operation.

In the horse, chloroform by inhalation is still

the method of choice in this country for the induction of general anæsthesia, although on the Continent chloral hydrate by intravenous injection has attained considerable popularity. In this subject the value of regional anæsthesia is well recognised—particularly as a diagnostic aid in lameness—whilst Hudson, in 1919, introduced local anæsthesia for the castration of colts in the standing position. More recently, anæsthesia of the face of the horse by appropriate nerve blocking has been carried out.

In cattle one is not often called upon to operate under general anæsthesia, but when this is necessitated chloroform is used. It is, however, in this subject that the more recently introduced epidural anæsthesia is of special value. It was first practised by Benesch, of Vienna, in 1926, and its introduction into this country came three years later. There appears to be little doubt that this form of anæsthesia has revolutionized the conduct of obstetrical operations, converting, for example, such a formidable task as the reduction of the prolapsed uterus from a harassing trial to a procedure comparatively pleasurable in its ease and simplicity.

In small animal practice a large variety of both general and local anæsthetic agents are in daily use. Morphine, which for years was the routine narcotic in canine practice, has to some extent been replaced by such agents as nembutal and avertin. Cocaine is now rarely employed, practitioners naturally exercising a preference for the less toxic substitutes of the novocain series. Ethyl chloride is used in this country as a local anæsthetic, although on the Continent it has attained some popularity as a general anæsthetic for cats. In this connection it must be borne in mind that the cat is an extremely difficult patient to handle and considerable restraint may be necessary in the administration to this subject of any anæsthetic by inhalation. It is here that narcotics, such as nembutal and avertin, which can be administered orally or *per rectum*, are of such value. An associated consideration of importance is the fact that animals naturally resent and fear compulsion to inhale strange and pungent vapours, with the result that excitement may be intense, with a proportionate increase in danger to the subject.

We understand that in human surgery favour is swinging back in the direction of the only feebly toxic nitrous oxide anæsthesia, maintained by combination with oxygen, but after sporadic attempts to introduce this method into veterinary practice it remains a rarity—no doubt the elaborate nature of the apparatus required and the high concentration of gas necessary, are responsible for this.

To sum up what is in many respects a highly-satisfactory position, while veterinarians will be the first to admit that in the realms both of general and local anæsthesia animals offer a favourable field for the achievement of advances in the science, they may fairly claim much credit for the very thorough investigations of their clinicians in this connection, which have now ensured that no form of animal surgery is carried out without ensuring the most effective and appropriate form of anæsthesia.

Clinical Communication

VENTRICLE-STRIPPING OPERATION IN THE DOG

FRANK CHAMBERS, O.B.E., F.R.C.V.S.
Wolverhampton

The subject of this note was a 16-months-old Borzois bitch, a really beautiful specimen, that already in her short career had done very well on the show bench. She was, in addition, a great pet of the owner, but unfortunately she developed a very bad habit of howling every morning from 4 a.m. to 6 a.m. This caused great annoyance to the neighbours. Everything from thrashing to bromide had been tried to stop her, without avail. As one of the near neighbours was an invalid the owner of the bitch consulted me with a view to doing something to stop the nuisance. She was very reluctant to have the bitch destroyed, as she was genuinely fond of her. I suggested that stripping the ventricle might be successful, but owing to the restricted space within which to operate I could not guarantee that the result would be one hundred per cent. successful.

It was decided, however, that she should be operated on and accordingly 1½ grs. of morphine sulph. was administered and when the drug had taken effect the bitch was put on the operating table and the site of the operation prepared in the usual manner. Exactly the same preliminary technique was observed as when operating on the horse, save that, in order to get a better view of the ventricles and vocal cords, the incision through the crico-thyroid ligament was carried through the first ring of the trachea. An incision was made along the inner aspect of the left vocal cord and with the aid of dissecting forceps the mucous membrane was successfully and cleanly removed I was not so successful with the right ventricle, as the bitch showed signs of coming out of the anæsthetic before

the mucous membrane was completely removed. However, the greater portion was taken away. The wound took three weeks to heal and there was a copious muco-purulent discharge for the first ten days.

The bitch fed well the whole time and was sent home on the 24th day. She was shown soon afterwards at Cruft's and other championship shows and took many premier awards. She contracted distemper at the second show she visited, but made a quick recovery. She has never howled since and can only make a funny little bark when exhibiting delight. She has been a great pleasure to her owner, and but for this operation she would have had to have been destroyed.

Abstracts

[The Influence of Pregnancy and Lactation on Bovine Blood Serum, with some Remarks on Milk Fever. Frei, W. and Demmel, M. *Schweiz. Archiv f. Tierhlk.* 1932. Vol. 74, No. 11.]

Certain factors having an influence on the composition of the blood serum of cows in different phases of sexual activity are here discussed and illustrated by five tables. The factors include chiefly the season of the year and the age of the animal, and blood calcium, blood sugar and the refractive index of blood serum (to indicate serum protein) were studied. Broadly speaking, the blood calcium was found to vary very little between cows in œstrum, inter-œstrum and pregnancy, but it was found that cows pregnant in winter, but not those in summer, showed a decrease in Ca [presumably during uninterrupted confinement indoors]. Blood sugar showed no definite variation under the various circumstances. Pregnant cows showed an increased blood refractive index over those not pregnant.

The theories of the etiology of milk fever are discussed and the authors consider that the causation is very complex and connected jointly with the endocrine system, the autonomic nervous system and with mineral and other constituents of the body tissues. These factors are closely connected physiologically and all must be involved together. Parturition is considered to be more important in causation than the onset of lactation.

J. E.

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[Canker in the Equidæ. Houdemer, E. *Bulletin de L'Académie Vétérinaire,* Vol. 5, No. 8.]

The author, having been drafted to Tonquin and finding on his arrival at the barracks seven mules and three horses the subject of canker, had a good opportunity for research in regard to its etiology and treatment. Dr. Houdemer's conclusions are that the findings of Mm. Blot and Lamarré (that both canker in the horse and foot-rot in sheep are due to spirochætes) are untenable, that the malady is not contagious and can be dealt with by local treatment alone. Although the presence of spirochætes in canker is not denied, it is pointed out that they may be found in many necrotic processes in horses, cattle and pigs, and that they have no etiological significance in canker.

A long list is given of the antiseptics, caustics, astringents, etc., found in the pharmaceutical arsenal employed against canker. The author, however, in his treatment, confines himself to a liquid dressing of iodine, picric acid and formalin solution alternated with a dry dressing of copper acetate, zinc oxide, salol, tannic acid and boracic acid. Very little information is given as to the method of applying the remedies—a matter perhaps as important as the choice of the curative agent.

W. R. D.

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[Contribution to the Question of Increasing the Aggressin Content by the Addition of Formaldehyde to Blackleg Culture Filtrate. Zschokke, W. *Schweiz Archiv f. Tierhlk.* 1932. Vol. 74. No. 11.]

The author gives an interesting review of the knowledge of bacterial aggressins, substances produced by bacterial growth which, when injected in a mixture with virulent aggressin-specific organisms, cause a much greater reaction than the bacteria alone do: thus in the case of blackleg even a fractional part of an M.L.D. of *Cl. chauvœi* becomes lethal when inoculated along with the aggressin into a susceptible animal.

The author performed several experiments to find whether the aggressin content of a culture filtrate can be increased by the addition to it of 0·5 per cent. formaldehyde. As judged by the results of animal inoculation, using blackleg and malignant œdema organisms, the results were in the affirmative and even 1/200 of the M.L.D. was made lethal by the addition of the formolised aggressin. Further experiments with virulent cultures *plus* formolised broth or formolised saline also reduced the M.L.D., therefore it was concluded that formaldehyde at 0·5 per cent. acts like a non-specific aggressin and greatly increases the virulence of pathogenic bacteria inoculated along with it as a mixture (but not if they are inoculated separately at the same time at different places). Phenol at 0·5 per cent. was found to have a similar but somewhat weaker effect to formaldehyde. These substances, when added to culture filtrates, do not lead to an increase in their natural aggressin content, nor do they (*in vivo*) lead to an increase in the formation of anti-aggressins.

J. E.

N.V.M.A. Divisional Reports

NORTH OF SCOTLAND DIVISION*

PRESIDENT'S ADDRESS AT ABERDEEN

The half-yearly meeting of the Division was held in Marischal College, Aberdeen, on Saturday, January, 28th, 1933.

Mr. John Lyon (Banff), the President, was in the chair, and there were also present: Messrs. Alexander Niven, D. Clerk, W. McPherson, D. Cumming, John C. Grant, Wm. Ogilvie, A. Sievwright, and G. Howie, Hon. Secretary.

The minutes of the last meeting were taken as read, as they appeared in the *Veterinary Record*, and were approved and signed.

Apologies for absence were received from:—Messrs. G. Moir, D. Crabb, W. Anderson, J. Anderson, W. Grant, W. Hepburn and H. W. Robson.

The President remarked that it was a pity there were such a small gathering of members, but he understood that the reason for absence was partly illness and partly the bad state of the roads. He hoped that those who were indisposed would soon be completely restored to health.

CORRESPONDENCE

The Secretary read the following letters:—

(1) From the General Secretary of the National Veterinary Medical Association, dated 6th October, 1932, *re* the desirability of establishing early contact with any Local Branch of the R.S.P.C.A. regarding the treatment of animals of the poor.

Mr. Cumming, Culter, said that there was very little necessity for making any definite arrangements with the Local Branch, as most of the members of the Division were in practice in the country and he understood that the veterinary surgeons in Aberdeen were only too ready to help with the treatment of animals of the poor, free of charge, when asked to do so, and that they already worked in close harmony with the R.S.P.C.A.

The Secretary was instructed to reply to the General Secretary to that effect.

(2) From William C. Miller, Secretary, Scottish Branch, National Veterinary Medical Association, dated 9th December, 1932, with regard to the appointment of Vice-President selected to represent Scotland on the Council of the National Veterinary Medical Association.

Discussion disclosed that it was the general feeling of the members that the proposals contained in the letter were somewhat controversial, and it was agreed to let the letter lie on the table.

(3) From the Secretary, National Horse Association of Great Britain, asking for support from all the Divisions of the National Veterinary Medical Association in their efforts to further the interests of the horse.

It was the feeling of the meeting that any individual member wishing to become a member of this Association should do so, but that the Division could not see its way to support the Association. Accordingly, it was resolved to let the letter lie on the table.

(4) From the Editorial Representative of the National Veterinary Medical Association, dated January 30th, 1932, asking this Division to give consideration to suggested measures for increasing the volume of material for the *Veterinary Record*.

The President said that this letter was a most appropriate one, and that he had much pleasure in proposing that the Honorary Secretary, Mr. George Howie, should be appointed to act as Divisional Representative of the *Veterinary Record*. He expressed the hope that all members would support their representative and furnish him with much clinical material.

The Secretary, in reply, stated that he would be very pleased to act as Divisional Representative but that the members of the Division must see to it that they furnish him with material as often as possible. He was sure that many members could furnish the *Record* with very useful clinical material and, in his opinion, it was an excellent idea of the Editorial Committee to appoint members to act as Divisional Representatives, as many country practitioners were rather diffident in writing about cases unless they knew that someone would assist them in "polishing up" the paper before it appeared in print. They might, however, be far more willing to contribute when they were aware that their material would first of all pass through the hands of someone whom they knew.

The Secretary was instructed to inform the Editorial Representative of his appointment as Divisional Representative.

New Member.—Mr. John Lyon proposed, and Mr. John C. Grant seconded, that Mr. R. N. Davidson, Banff, be elected a member of the Division.

His election was most heartily agreed to by the members present.

ELECTION OF OFFICE-BEARERS

The following Office-bearers were elected:—

President.—Mr. Wm. Anderson, Keith, proposed by the President and seconded by Mr. Wm. McPherson.

Vice-Presidents.—(Senior) Mr. John C. Grant, Aberdeen. (Junior) Mr. Duncan Cumming, Culter.

Secretary & Treasurer.—Mr. G. Howie, Aberdeen (re-elected).

Council.—The members of Council were re-elected.

* Received for publication February 11th.

PRESIDENTIAL ADDRESS

The President then gave his Address from the Chair, in the following terms:—

I should like, at the outset, to express my appreciation of the great honour you have conferred upon me by electing me President of our Division of the National Veterinary Medical Association. It is a very high honour to confer on one who has been a member for a comparatively short time and I am very conscious of my many shortcomings in fulfilling the duties pertaining to the office. My inexperience is my excuse and if I live long enough to have the same honour conferred upon me again, I hope that I may then prove more worthy of you.

Owing to the economic chaos prevailing in the world, the past year has been very difficult. There are few people who did not suffer from the general depression and we, as a profession, could not fail to be included, since most of us here to-day are closely associated with and derive the bulk of our livelihood from the most depressed form of industry in the country, *viz.*, agriculture. The farmer has had a very hard struggle for a long time and he has been forced to economise very drastically to make any kind of a living at all and, unfortunately for us, he has considered dispensing with our services as much as possible—a necessary part of his scheme. It is useless, in most cases, to try to point out to him that failure to call on us for advice in time is false economy—rather, an extreme form of extravagance. He is attempting to be his own veterinary surgeon in minor cases and we are only called in when his own efforts have failed. I only hope that when conditions improve he will again rely more on the man trained for the work.

There is, however, a distinct prospect of the future of the farmer being brighter if the Government Committees that are now enquiring into agricultural matters recommend some definite policy to aid him in his struggle.

The veterinary surgeon in town has suffered just as much as his country brother, though through different causes. The horse to a great extent has been replaced by mechanical transport and the small animal practice has suffered because people cannot afford to pay fees. In England, the societies for the free treatment of the animals of poor persons have all but ruined many veterinary surgeons. These Dispensaries might possibly have done greater harm were it not for the fact that, owing to the action taken by the National Veterinary Medical Association, there are now many charity centres staffed by qualified men and supported by voluntary contributions.

The appointment of whole-time veterinary officers during the last few years has also added considerably to the burden of the country practitioner, as he used to have a steady and sure income when he was employed as a part-time inspector. Not only has he lost the fees he used to get for his work for the Local Authority, but he has also been deprived of the opportunity of earning a fairly steady income to be derived from the testing and periodical examination of herds registered under the Milk (Special Designations) Order.

Nevertheless, although our incomes may have been affected by these whole-time appointments, the activities of the County Officials have brought home to the public the fact that the services of the veterinary surgeon are essential to the State and that the meat and milk supply is to a great extent now under his control.

I am glad to be able to record that scientific research in our profession is going steadily ahead, and more especially must I refer to the work of Dr. Laidlaw and Major Dunkin in bringing their research into canine distemper to such a brilliant conclusion and their production of a vaccine and virus which can be used with confidence. I should like to express our appreciation, individually and as a branch, of their work, as they have demonstrated to the world that veterinary research is as much alive as any other branch of scientific research. We have other research workers who have achieved equally brilliant results during the past year or two, but owing to the nature of their discoveries they have not received the same publicity. It is comforting to know that we have such men in our profession. It gives us—ordinary practitioners—something to live up to, and may help us on the road to better times.

We must not feel superior, however, and try to live apart from the medical profession, for many of the diseases we encounter are very similar. During last year the Medical Research Council revised their report on the present state of knowledge concerning accessory food factors and their new survey of the present knowledge of vitamins is a most useful work. We, in practice, can derive much benefit from a study of it, and it should enable us to arrange scientific diets suitable for many different types of patients and diseases.

I am afraid I may have appeared rather pessimistic, but, I assure you, I am full of hope for the future and I feel quite sure that once we get past this world depression, things for us will be brighter than ever they were in the past, as we, as a profession, are more appreciated than we have ever been.

The large amount of money recently raised for the rebuilding of the London College, and the Knighthood conferred upon the Principal, is an indication of the esteem in which we are held by our King and his people. (Applause.)

On the call of Mr. John C. Grant, the President was accorded a hearty vote of thanks for his address.

Next Meeting.—It was proposed by Mr. Duncan Cumming that the next meeting might take the

form of an Outing, preferably somewhere on Deeside, and it was left to the members of the Council to make definite arrangements as to the date and place of meeting.

Finance.—The Secretary put the financial position of the Division before the members and it was agreed that this was most satisfactory.

Tuberculin Testing Charges.—Mr. John C. Grant mentioned the subject of the charges for tuberculin testing. The discussion on this subject had been postponed from the previous meeting, but as there were so few members present, it was decided that there was little use in discussing it at this one. Accordingly, it was resolved that the matter should be investigated by the Council and a report drawn up for submission to the members at the next meeting.

DEMONSTRATION

The members then adjourned to the Department of Veterinary Hygiene, where a most instructive and interesting demonstration on Poultry Diseases and the proper routine method of making a *post-mortem* on poultry was given by Mr. John C. Grant. The lecturer dealt with several of the more important diseases in poultry and indicated the best measures for their prevention and cure.

On the call of the President, supported by Mr. Sievwright, Mr. Grant was most heartily thanked for the trouble he had expended in arranging for the demonstration. The former observed, amid applause, that he was sure that all the members had benefited greatly.

George Howie, *Hon. Secretary.*

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WEST OF SCOTLAND DIVISION*

ANNUAL MEETING AT GLASGOW

The annual meeting of this Division was held in the Grand Hotel, Sauchiehall Street, Glasgow, on Wednesday, January 25th, at 2.30 p.m.

The President (Prof. Robb) occupied the chair, and the following members signed the attendance book:—D. Campbell, Dr. A. W. Whitehouse, A. Gibb, Esmond Brown, H. Begg, junr., H. H. Brodie, R. Renfrew, Jas. McFarlane and Alex. Thomson (Hon. Secretary). Mr. John Taylor (Edinburgh) and Mr. H. M. Wilson (Cupar) were present as visitors.

Apologies for absence were received from Prof. Weir, Messrs. A. Sillars, J. G. McGregor, J. M. Mitchell, W. M. Ferguson G. Dykes, P. Meikle, D. Brown (Kilwinning) and Mr. J. F. Taylor.

Arising out of the correspondence, it was decided that the Division should become affiliated to the National Horse Association, and the Secretary was instructed to forward the subscription due.

A letter from the Secretary of the Scottish Branch was discussed, and the Secretary instructed as to the reply.

Balance-Sheet.—The Treasurer submitted the balance-sheet for the year which, having been passed by the Auditors, was adopted.

ELECTION OF OFFICERS

President.—Prof. William Robb, the retiring President, then proposed that his successor be Mr. J. F. Taylor, who had served the Division recently in the capacity of Vice-President. This was seconded by Mr. Donald Campbell, and carried unanimously.

Vice-Presidents.—Maj. J. G. McGregor and Mr. H. Begg, junr.

Secretary and Treasurer.—Mr. Alex. Thomson.

Auditors.—Messrs. Jas. McFarlane and Robert Mitchell.

Representative on Council, N.V.M.A.—Dr. A. W. Whitehouse.

Representative on Executive, Scottish Branch.—Prof. G. W. Weir.

Divisional Committee.—Messrs. R. Renfrew, W. Watt, A. Stark, and the office-bearers (*ex-officio*).

N.V.M.A. Press Announcement.—Mr. H. H. Brodie drew the attention of the meeting to a cutting from the *Greenock Telegraph* of a communication inserted by Mr. F. Knight (Secretary of the N.V.M.A.) drawing attention to the qualifications of a veterinary surgeon. It was felt by the members present that in recognition of Mr. Knight's efforts in the interests of the profession the Secretary be instructed to send him a formal vote of thanks.

This concluded the business.

Discussion.—In the absence of Mr. Taylor, the past President (Prof. Robb) called upon Mr. Donald Campbell to open the discussion on Mr. Begg's paper, " Conditions Associated with Parturition in the Cow," postponed from the November meeting, at which this paper was presented.

[A report of the discussion is reproduced elsewhere in this issue.—Ed., *V.R.*]

Votes of thanks to the essayist, to Mr. Campbell for opening the discussion, and to Prof. Robb for his conduct in the chair, terminated the meeting.

Alex. Thomson, *Hon. Secretary.*

INDEX VETERINARIUS

The Imperial Bureau of Animal Health proposes to issue a complete index of publications relating to veterinary research, administration, public health and education. It will be issued quarterly, each issue consisting of about 400 pages, about 10,000 references being indexed each year. It will be crown quarto size, and is to be prepared on a Gestetner duplicator. The price is to be £4 per volume and the Index will be published from January, 1933, provided an adequate response is received to the preliminary notice.

* Received for publication February 10th.

Notes and News

The Editor will be glad to receive items of professional interest for inclusion in these columns.

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DIARY OF EVENTS

Mar. 11th.—Annual Meeting of the North of England Division, N.V.M.A., at Newcastle-on-Tyne.

Mar. 13th.—Meeting of the Editorial Committee, N.V.M.A., at 2, Verulam Buildings, Gray's Inn, W.C.1, at 4.30 p.m.

Mar. 15th.—Annual Meeting of the Lancashire Division, N.V.M.A., at Manchester.

Mar. 16th.—Annual Meeting of the Western Counties Division, N.V.M.A., at Exeter.

Annual Meeting and Dinner of the South Eastern Division, N.V.M.A., at Tunbridge Wells.

Mar. 24th. — Complimentary Dinner to Sir Frederick Hobday, Mayfair Hotel, W.

Mar. 28th.—Meeting of the North Midland Division, N.V.M.A., at Sheffield.

Mar. 31st.—Annual Meeting of the Southern Counties Division, N.V.M.A., at Southampton.

April 1st.—R.C.V.S. Annual Fees due.

April 5th. R.C.V.S. Committee Meetings.

April 6th.—**R.C.V.S. Annual Dinner,** Hotel Victoria, Northumberland Avenue, W.C.2, at 7.30 p.m. Tickets price 12s. 6d.

April 6th.—R.C.V.S. Committee Meetings.

April 7th.—R.C.V.S. Council and Committee Meetings.

Sept. 18th-23rd.—N.V.M.A. Congress, Llandudno.

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PERSONAL

At the Levée held on Tuesday last, at St. James's Palace, by H.R.H. the Prince of Wales, on behalf of His Majesty, Major-General Sir John Moore, K.C.M.G., C.B., F.R.C.V.S., on appointment as Colonel Commandant, Royal Army Veterinary Corps, was presented by the Secretary of State for Air.

Presentations to His Royal Highness at this Levée are by The King's Pleasure considered as equivalent to presentations to His Majesty.

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Marriage.—Leech—Grimoldby.—At Fotherby church, Lincolnshire, February 23rd, 1933. Frank H. Leech, "The Laurels," Shavington, Crewe, to Violet Elsie Grimoldby, only daughter of the late Christopher Grimoldby, The Manor, Little Grimsby, Lincs.

Retirement Presentations to Mr. F. W. Cox.—The *Derby Evening Telegraph* of March 1st, reports that Mr. F. W. Cox, F.R.C.V.S., of Burton Road, Derby, who served the old Midland Railway Company and the L.M.S. Company for 30 years, has received a number of gifts to mark his retirement.

Gifts from the horse department staff at Euston were a gold fountain pen, a gold pencil, and a case of pipes, and from the Derby staff came a silver cigarette box, the subscribers to which included the stablemen, shoeing smiths and saddlers.

Mr. Cox was entertained to dinner at Euston by the chief horse superintendent, to whom he was assistant from the L.M.S. amalgamation up to his retirement. Those in attendance included the district horse superintendents at Glasgow, Manchester, and Birmingham.

Derby is an important horse depôt of the L.M.S. system, and Mr. Cox had under his care 1,700 horses over an area extending from Bradford to Leicester, taking in Burton and Nottingham. More than 7,000 horses are still used by the railway company. Each horse is bought at the age of five or six years, and has an average working life of 7½ years. There is accommodation for 150 horses at the hospital on London Road, Derby, and there are three covered yards.

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Capt. Pillers and the Royal Society of Edinburgh.—"Liverpool has not many Fellows of the Royal Society of Edinburgh, but the Council has recommended for election to such an honour next Monday, Mr. Alfred William Noel Pillers, who recently succeeded Mr. T. Eaton Jones as the chief veterinary officer to Liverpool Corporation." says the *Liverpool Post,* of Friday, March 3rd. "Mr. Pillers lectures on veterinary parasitology in Liverpool University, and has been an authoritative writer for a quarter of a century in the veterinary journals.

"Mr. Pillers was proposed for his Fellowship by four distinguished sponsors—namely, Sir Frederick T. G. Hobday, Principal of the Royal Veterinary College, London; Dr. Charnock Bradley, Principal of the Royal Veterinary College, Edinburgh; Dr. Douglas A. Allan, Director of Liverpool City Museums, and Mr. John W. M'Intosh, the well-known London veterinary surgeon."

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R.C.V.S. OBITUARY

Lyon, William Malcolm. Wooler, Northumberland. Graduated New Edinburgh, April 20th, 1883; Died March 1st, 1933.

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FOOT-AND-MOUTH DISEASE

The existence of foot-and-mouth disease was confirmed on Friday of last week, among cattle on premises in the parish of Burton Overy, Leicestershire.

The area subject to restrictions of movement of animals lies in the counties of Leicester, Northampton, and Rutland.

An outbreak of foot-and-mouth disease was confirmed at Coventry Public Abattoir on Monday, among consignments of pigs sent in from Leicestershire and Leamington. These had been interned in the abattoir for several days, and as soon as infection was suspected they were promptly isolated and other animals on the premises were not affected.

Correspondence

Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue.

All correspondence must bear the name and address of the contributor for publication.

The Editor does not hold himself responsible for the opinions of his correspondents.

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"HOW THE VETERINARY ADVISER CAN HELP THE FARMER"

To the Editor of the Veterinary Record

Sir,—With reference to the addresses by Messrs. A. D. McEwen and R. S. Roberts, to Kent Agriculturists, most of your readers will probably consider the comments of Mr. E. Morgan and Major G. W. Dunkin to be fully justified by the manner and matter of those addresses. If, however, we lay these to the charge of the two gentlemen responsible for them, there still remain many matters of vital import to the interests and prestige of the general practitioner, which are inherent in the Advisory Scheme itself.

To point out one of the most important of them, I wish to challenge Mr. McEwen's statement, "that the Advisory Officer may not undertake work regarded as within the province of the private practitioner."

It is done constantly, and no one has denied, much less refuted, a statement of mine made long ago in the *Record*, that "Advisory Officers can, and do, visit, advise, and prescribe treatment for, the animals of farmers who are the clients of ordinary practitioners in their area, at the direct invitation of the farmers themselves, or at the request of officials of a Farmers' Union."

They can, and do, take over the treatment of animals which have actually been, or are being treated or advised upon by the local practitioner.

They do so with impunity under the protection and authority of the Advisory Scheme itself, and the Advisory Officer has no obligation to the practitioner concerned, beyond an *optional* one of merely informing him of his intention, so that the responsibility is that of the scheme, and not necessarily of the individual officer.

The Ministry of Agriculture has expressly refused to place the Advisory Officer in the position of a Consultant, and has substituted the above procedure, of which I would reiterate the opinion that it constitutes a flagrant breach of our professional code of etiquette, and remains a standing reproach to the National Veterinary Medical Association and the Council of the Royal College, in tolerating it.*

Yours faithfully,
Edward P. Edwards.
Mold, North Wales.

March 4th, 1933.

[* There is no question of toleration; representations have been made to the Ministry by both bodies, and with some measure of success.—Ed., *V.R.*]

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VETERINARY INSPECTION IN CHESHIRE

To the Editor of the Veterinary Record

Sir,—I read with interest the above note in the current *Veterinary Record*, and having an idle moment, I interested myself in working out a comparison of part-time fees and the number of cows in milk and dry cows in calf in Cheshire with the same in Gloucestershire.

My figures are not absolutely correct, but near enough for the purpose.

The whole-time estimate of the Cheshire County Council, is, I am afraid, very optimistic, and I should venture to predict that the estimate of the gentleman in opposition is nearer to what will be required.

In Cheshire there are—according to the Report of Proceedings under the Diseases of Animals Acts for the year 1931—199,241 cattle of all sorts, and in Gloucestershire, 142,339.

In Gloucestershire there are 46,955 cows in milk and dry cows in calf; therefore in Cheshire there should be roughly 65,500 cows in milk and dry cows in calf, or some 8,000 more than in Gloucestershire.

Veterinary fees for Cheshire amount to £4,500 per annum for 21 part-time men, whilst with only 8,000 cows less to examine, the veterinary fees in Gloucestershire approximate £2,700 per annum. This includes *post-mortem* examination fees, which are the *only* expenses. This with 16 part-time men, who on the average account for over 400 tuberculous cows per annum.

It is also of interest to note that in Cheshire, six whole-time men (this includes a Chief Veterinary Officer, at, say, £700 p.a.) can do the work for £3,250 p.a. This only allows, after salaries are paid, £50 for expenses. Are the expenses for new shoes for the Veterinary Officers?

Each of these men, leaving out the Chief Veterinary Officers, will have to examine somewhere in the neighbourhood of 13,000 cows at least twice a year, and may be four times—a physical impossibility.

Here are 21 Veterinary Inspectors losing some £200 a year each in these hard times, and who are probably carrying more than that amount of farmers' debts on their books.

Veterinary Health Services may be all very well for 300 Veterinary Officers costing £300,000 p.a., under the Commissioners' recommendations, but what about the hundreds of veterinary surgeons in country practice who could be employed in this service?

I cannot understand the obsession of a certain clique for the creation of a whole-time Veterinary Health Department. A Veterinary Health Department, in my opinion, is an over-weening ambition. Have a Veterinary Health Department by all means if it means a Veterinary Officer of Health comparable with the M.O.H. of a County, but the profession cannot numerically carry the same number of whole-time men as the medical profession, *or exceed it, which is the present tendency*, except for the well-being of a few to the detriment of the many.

Compare the tens of thousands of medical men with their panel *practices to the* units *of the Veterinary men who have no panel.*

I commend this thought to the powers that be.

Yours faithfully.
J. W. Hall Masheter.

Ruddle House,
Newnham-on-Severn, Gloucestershire.
March 2nd, 1933.

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VETERINARY INSPECTION SERVICE

To the Editor of the Veterinary Record.

Sir,—The report of the Reorganisation Commission for Milk, recently published by the Ministry of Agriculture (Economic Series, No. 38, H.M. Stationery Office, price 6d.), requires the earnest study of our profession. There is abundant evidence that the interests affected by the report are busily engaged in analysing the Commission's recommendations and preparing their replies. What position will our profession take up and by what means will that position be represented in the appropriate quarters?

As I understand it, the principal problem is to define how the quality of raw milk can be

improved so that the confidence of the public and the medical profession can be obtained. To solve this problem the Commission recommend the setting up of a Board of Producers and a Board of Distributors co-ordinated in a joint Milk Council which should take steps to secure (1) the effective and uniform administration of the Milk and Dairies Order; (2) the compulsory routine clinical inspection of *all* dairy cattle, and (3) the institution of a roll of accredited producers.

Our profession should consider how its interests are affected by the report, and by the discussions arising out of the report, and should formulate the means whereby it can best serve the national interest under the present conditions obtaining in the industry and public finance.

It appears to me essential that individual members, attending discussions on the subject, should not be left to represent their personal opinions, but that they, and particularly our leaders, should be provided with the considered verdict of the profession so that they can collaborate with the many interests affected by the report in hammering out an agreed scheme.

It will be observed that the Commission recommend the compulsory routine clinical inspection of all dairy cattle. How can the nation's interests be most effectively secured by such inspection: through a whole-time service, a part-time service, or through the private veterinary practitioner acting on behalf of the individual producer?

Until recently, the private veterinary practitioner has formed the first line of attack on disease and the first line of defence of health in our dairy stock. Systematic veterinary inspection materially improves the health of any herd; thus the more widely adopted and the more efficient such systematic inspections become the more marked will be the health of the dairy cattle. Improved health of cattle, the consequence of an inspection service paid for out of public funds, will reduce the remuneration of the private veterinary practitioner. If the opportunities and remuneration of the private veterinary practitioner are reduced the number of graduates undertaking veterinary practice will decline. Any such decline cannot be offset by a proportionate entry into a whole-time service; the relative cheapness of a whole-time service is one of the most impressive claims put forward by its supporters. I decline to agree that the interests of the nation will be best served by a material reduction in the number of private veterinary practitioners, so long as our present animal population rate is maintained.

It appears to be universally accepted that the veterinary inspection of dairy cattle should be efficient. However, authorities do not agree in their definitions of efficiency and of the best means of obtaining it. Some confine their definition to technical efficiency, *i.e.*, the possession of knowledge and the art of applying it; but one veterinary official, whose authority I respect, has asserted that the efficiency of an inspection service depends essentially upon the inspector's tact and consideration for the producer. Is there incontestable evidence in support of those who maintain that a whole-time service is the only means of obtaining efficiency, that in technical efficiency the veterinary practitioner is inferior to the whole-time official? Efficiency is a quality of the individual and is not dependent on his station.

It appears to be widely accepted that the nature of the inspection service requires uniformity in its administration and conduct, and that uniform administration of the veterinary service can be secured by some veterinary administrator for the county or borough. How can uniformity of the inspection be secured? I suggest that the answer to this question lies in the answer to the next question, *viz.*,: in whom should the power of selecting the veterinary inspectors reside; in the central administration (which means whole- or part-time officials) or in the producers in council (which may mean the private practitioner)?

So many advocates of uniformity as a criterion of success overlook that very powerful element who can make or mar the success of any scheme—namely, the producer. Can it be seriously contended that uniformity in outlook and behaviour among milk producers is obtainable or is even desirable? Is it expedient to deny to the producer that sturdy individualism which is an integral element of the English character? It apears to me imperative that the veterinary profession should ascertain the wishes of the producers; how many of them would prefer to work this scheme in consultation with a veterinary practitioner conversant with their individual and collective circumstances? A scheme of veterinary inspection will succeed, not because it is logical, not because it is administratively convenient, but because it suits the producer. I suggest that the best service our profession can give—the service which will be most likely to provide a happy solution to the problem defined by the Commission—is one which is in harmony with the customs, mental capacities and ideals of the milk producer.

The time available for discussion is short; decisions having far-reaching effects upon our future will soon be taken. It is to be hoped that these decisions will embody the will of our profession.

I have the honour to be, Sir,
Your obedient Servant,
Tom Hare.

Department of Pathology,
Royal Veterinary College, London, N.W.1.
March 3rd, 1933.

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TUBERCULIN TESTING

To the Editor of the Veterinary Record

Sir,—I should like to endorse every word that Mr. J. C. Coleman has written in his communication on the "Double Intradermal Tuberculin Test" in your issue of February 25th.

That it is the nature of the swelling and not the maximum measurement which is the diagnostic symptom is not fully appreciated, and that in a herd one animal may pass the test although the maximum reading is in excess of another in the same herd which has reacted. The normal measurement of an animal may vary from test to test, depending not only on the site on the side of the neck selected for injection, but on how tightly the calipers are applied. Such occurrences cause queries, but should not do so to those conversant with the test. It is as well to note that in the case of bulls, in view of the normal thickness of their necks, the injection is best made either on the side of the ribs, or in the flank.

The only guide to the accuracy of a test for tuberculosis is *post-mortem* findings, and in this connection I have no hesitation in stating that I have found it by far the most reliable, and it has not let me down. Next to it for reliability, I would place the subcutaneous test, and as a very bad third, the ophthalmic. This latter is much the most unreliable, in my experience.

The subcutaneous test, with its temperature chart, is no doubt the most impressive, and conveys more to the stockowner than bare measurements in millimetres, but when combating a dis-

ease like tuberculosis it is essential that a test should be used, to which only the presence of this disease will give a reaction. Such is emphatically not the case with the subcutaneous test, as there are other factors beyond human control, such as the sudden onset of œstrus, which may cause a rise in temperature.

I consider that the appointment of whole-time Veterinary Officers is a step in the direction of securing for the Profession the position enjoyed by it in other countries, but at the same time, the interests of the general practitioner must at all times be safeguarded. I do not consider that, except in the case of large Counties, one is essential for every County, and I would far sooner see areas mapped out and staffed by a whole-time Veterinary Service after the manner adopted in Military circles, leaving the quarterly inspection of milk cattle and tuberculin testing to the client's own veterinary surgeon, who should render his reports to the whole-time Department, and who would deal with cases to which their attention was drawn. This would not prohibit check visits and testings on its part. To hand over all these duties to a whole-time man, would not only be grossly unfair to the general practitioner who has taught his clients the value of clean milk production and regular testing, but will make for friction, as officials are always regarded with suspicion by the bulk of the farming community.

It should also, in conclusion, be remembered that a person able to take up a whole-time appointment will, in the majority of cases, be a comparatively recent graduate and theoretically sound. The general practitioner is the one with the practical knowledge (or he would not exist as such) and the one best fitted for the practical side of the problem.

Yours faithfully,
J. F. D. Tutt, F.R.C.V.S.

Winchester.
March 3rd, 1933.

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To the Editor of the Veterinary Record.

Sir,—I should be glad if you would allow me space to explain my advertisement, as I have so many replies asking when the classes are to be held.

Once again may I emphasise that I think Demonstrations *are not very helpful.*

I commence my classes this week, and each class is composed of three members for five days.

Each member will carry out the full technique on their proportion of two herds of 45 each, under my supervision. The first batch of 45 will be principally for instructional purposes, but in regard to the second batch, each individual must do the injection of the tuberculin upon his proportion of the herd. Each must, however, read and record his decision, as to whether or not there is a reaction, upon the whole of the 45 beasts tested. To those who do this to my satisfaction, I propose to give a certificate stating this.

Yours faithfully,
J. C. Coleman.

"The Limes,"
Croft Road, Swindon.
March 6th, 1933.

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FELINE DISTEMPER *versus* SPECIFIC FELINE INFECTIOUS ENTERITIS.

To the Editor of the Veterinary Record

Sir,—I was particularly interested in Major Hamilton Kirk's article, in the *Record* of February 25th, dealing with this subject, and in the abstract, in the same issue, of Dr. Hindle's "Bacteriological Studies on Feline Distemper"; also in the subsequent discussion by the Section of Comparative Medicine of the Royal Society of Medicine.

From clinical observation I am entirely in favour of Major Hamilton Kirk's contention that the two diseases are distinct entities. I have had considerable experience of both diseases, both in single cases of pet cats and in large outbreaks in catteries and boarding establishments. The description of the symptoms of the two conditions given by Major Hamilton Kirk agrees with my own observations, and although I, at first, from past teaching, held the opinion expressed by Professor Wooldridge at the meeting, I have since changed my views in the light of clinical experience.

In regard to the treatment of feline distemper (as described by Major Hamilton Kirk), I have, for a number of years, used collosol palladium, given intramuscularly and repeated at one- or two-day intervals according to the severity of the case. The dose given is 1 to 2 c.c. I have come to regard it as a specific for this condition and give no medicine, merely advising general nursing, boracic mouth wash, feeding a very small quantity (one to two teaspoonsful) of milk three or four times daily until the cat will lap, and warmth, preferably by means of hot-water bottles.

My records show in one boarding establishment over 100 cases in one year (45 at one holiday period) and that the mortality was three. Generally speaking, I calculate that with this treatment the mortality does not approach 10 per cent.

I have also tried the effect of this injection on in-contacts and find that it does inhibit the infection.

It is usual in a cattery to find that if one cat becomes infected all the rest quickly contract the disease. By giving collosol palladium the spread of the disease is inhibited. In most cases the majority of in-contacts exhibit no symptoms of the disease and remain apparently healthy, others contracting the disease in a light form.

In regard to specific feline infectious enteritis, the treatment for this disease is usually disappointing. I have no records on which to estimate mortality, but would be inclined to place it higher than 80 per cent.

In practice, one usually receives these cases in the later stages when there is little or no hope of useful treatment, but in catteries in which it has been possible to "educate" the breeders or those in charge to call one in at the first onset I have had encouraging results from a combination of collosol palladium, 1 to 2 c.c. intramuscularly, and calcium vetostelin, 1 c.c. subcutaneously, repeated every eight hours for the first day and every twelve hours subsequently.

In my experience, medicines given orally are rarely, if ever, retained, invariably provoking emesis—for that reason I do not prescribe them. General nursing, warmth by use of hot-water bottles frequently changed, and complete withholding of food for 24 hours are also routine measures. After 24 hours, milk 4 parts, boiling water 1 part, sweetened with honey or sugar, is given—the quantity being not more than two teaspoonsful every four hours. In favourable cases the cat will usually lap on the third day and recovery ensues. In unfavourable cases death ensues within 24-72 hours of the onset of symptoms.

This treatment has proved by far the most sucessful of any that I have tried. I should be interested to hear the results attained by other

practitioners who may decide to try these medicaments.

Geo. N. Gould, Jun.

"Rockholme,"
10, Landguard Road, Southampton.
February 27th, 1933.

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(I) "WHAT IS THIS SO-CALLED SEWAGE POISONING?" (II) "RECUMBENCY IN HORSES AND CATTLE."

To the Editor of the Veterinary Record.

Sir,—Major T. Lishman has asked a very apt question. It is said that words are sometimes used to disguise thought, and in veterinary nomenclature this often appears to be the case.

In Vol. I, at page 335, of Professor G. H. Wooldridge's "Encyclopœdia of Veterinary Medicine, Surgery and Obstetrics," in an article on "Water," by that stalwart, Mr. W. Woods, F.R.C.V.S., there are the following lines: "Microscopical examination of water might point to the presence of sewage if epithelial cells or shreds of muscular fibre were found." . . . "Bacteriological examination and plate culture methods are the modern ways of testing for sewage, and two germs often implicated are *B. typhosus* and *B. coli communis*." So writes Mr. Woods. If we now turn to "Veterinary Pathology and Bacteriology," 1932, by Professor Gaiger and G. O. Davies, at p. 168 *et seq.* we shall soon be able to see what these bacilli (under their modern names) do for animals.

In my younger days, I once crossed controversial swords with a practitioner who put down the deaths of cattle on a sewage farm to poisoning by *coniine* (the alkaloid of hemlock) in ensilage. He overlooked the fact that in the preparation of ensilage the temperature undergone by the silage material is 130° F. and that this temperature renders the fruit and leaves of hemlock inert.

I was very pleased to read the article on "Recumbency in Horses and Cattle," by F. C. Scott, M.R.C.V.S., but would have liked also to read the discussion on it.

Sometimes a whole herd (small) of cows becomes recumbent for two or three days, but whence comes the cause is in the lap of the gods.

Yours faithfully,

G. Mayall, M.R.C.V.S.

Bolton.

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LETHAL CHAMBERS

To the Editor of the Veterinary Record.

Sir,—After reading the views of both sides on the use of lethal chambers, I think that the whole matter can be reduced to one question, and that is this: "In what way does the administration of chloroform, ether, or gas, through the medium of a lethal chamber, differ from their administration through the medium of a mask when employed for purposes of anæsthesia, bearing in mind that in this case some form of restraint, in addition, will be necessary"?

There can be no question that shooting is the quickest and most humane method, but it is by no means always a practical method in general practice. Prussic acid is no doubt a very quick method, but it cannot be described as humane. I should very much like to see a lethal chamber put on the market in which dogs and cats could be electrocuted.

Yours faithfully,

J. F. D. Tutt, F.R.C.V.S.

Winchester.
March 4th, 1933.

To the Editor of the Veterinary Record.

Sir,—I was so much impressed with Capt. Dowland's account of the coal-gas poisoning cases, in the *Veterinary Record* of February 25th, that I carried out some simple experiments on some field Spaniels of my own. They are dogs of acute sense of smell that have been kept from birth in outside kennels—practically an open-air life. By means of a rubber-tube, coal-gas was led from the house into the sleeping part of the kennel, where there is the usual bench covered with straw. The dogs were taken out for a run and brought back tired.

Normally they would have gone up at once on to the straw bench for a sleep. On this occasion nothing would induce them to go near the straw bench where the air was impregnated with coal-gas. When I put a dog by force into that part of the kennel he struggled violently with me to get away, and I repeated the experiment with each dog with the same result. None would remain there. A dog living always in a house, especially a town house, and perhaps constantly exposed to the smell of coal-gas might become used to it, but the reactions of these Spaniels were as I have stated. It has been established that it is possible for man to acquire a tolerance to carbon-monoxide poisoning, and no doubt the same applies to animals to some extent. But my simple experiments (and they can easily be verified) seem to prove that what Capt. Dowland describes could not possibly happen to adult sporting dogs accustomed to lead an open-air life.

With reference to Colonel Walker's observations on electrocution, I should be grateful if any of your readers could inform me where this form of lethalling may be seen. I am most anxious to see it for myself. It is difficult to understand (if electrocution is perfectly satisfactory) why one American State has preferred prussic acid gas poisoning to electrocution for the execution of murderers, when we all know that death by prussic acid is not painless.

Yours faithfully,

J. Wakefield Rainey.

"Burlington,"
Newbury, Berks.
March 6th, 1933.

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THE SIR F. HOBDAY DINNER

To the Editor of the Veterinary Record.

I notice that March 24th has been fixed for the dinner to Sir Frederick Hobday.

This is also the date of the Grand National, and in view of Sir Frederick's remarks on Grand National types of horses, etc., one would have concluded that he (and incidentally many other sporting veterinary surgeons) would have desired to be at Liverpool to amplify his knowledge in this respect.

Yours truly,

T. Eaton Jones, F.R.C.V.S.

"Redcot,"
Beach Lawn.
Waterloo, Nr. Liverpool.

The Editor acknowledges, with thanks, the receipt of the following:—

Communications from Capt. W. E. Blackwell (Towcester), Mr. W. P. Blount (Goring), Captain K. J. S. Dowland (Lincoln), Mr. Hugh P. Hogben (Folkestone), and Mr. W. Tweed (Sheffield).